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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,548	10/26/2001	Siming Lin	5150-63900	8072
35690	7590	02/23/2005	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.			LU, TOM Y	
P.O. BOX 398			ART UNIT	
AUSTIN, TX 78767-0398			PAPER NUMBER	
			2621	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,548	LIN ET AL.	
	Examiner	Art Unit	
	Tom Y Lu	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,45-48,50-52,65 and 66 is/are rejected.
- 7) ☒ Claim(s) 2-44,49 and 53-64 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 50 is objected to because of the following informalities: a typographical error is found at line 15, "cobr" should be "color". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 45, 47, 48, 50, 51 and 65 are rejected under 35 U.S.C. 102(e) as being anticipated by National Instruments ("IMAQ Vision Concepts Manual", October 2000, pages 14-18 though 14-25). The applied reference has a common National Instruments with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

- a. Referring to Claim 1, IMAQ Vision Concept Manual (is referred to as IVCN herein) teaches performing a color matching search through the target image in order to find one or more color match candidate regions, wherein the one or more color match candidate regions match the template image with respect to color information (IVCM: page 14-23, Color Matching and Color Location section); performing a

luminance pattern matching search in the one or more color match candidate regions in order to find or more luminance pattern match candidate regions match the template image with respect to pattern information (IVCM: pages 14-23 through 14-24, Grayscale Pattern Matching and Combining Color Location and Grayscale Pattern Matching sections, also see figure in page 14-25); wherein at least one of said color matching search and said luminance pattern matching search are performed using a hill-climbing technique (page 14-23, paragraph 2); and wherein the one or more luminance pattern match candidate regions are useable in determining regions of the target image that match the template image with respect to color information (page 14-24, Combining Color Location and Grayscale Pattern Matching section).

- b. With regard to Claim 45, see explanation in Claim 1.
- c. With regard to Claim 47, see explanation in Claim 1.
- d. With regard to Claim 48, see explanation in Claim 1.
- e. With regard to Claim 50, see explanation in Claim 1, and the unaddressed limitations of “determining one or more final match regions in the target image from said one or more second candidate regions; and providing output indicating the one or more final match regions in the target image, wherein the one or more final match regions match the template image with respect to color and pattern information” are explained in figure 14-16 at page 14-25, the final match regions are the final locations.
- f. With regard to Claim 51, see explanation in Claim 1, the additional limitations of “a processor” and “a memory medium” are inherent components of a computer system, which is used by National Instruments to perform the matching concepts.
- g. With regard to Claim 52, see explanation in Claim 1.

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- h. With regard to Claim 65, see explanation in Claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 46 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over National Instruments in view of Bedrosian et al (U.S. Patent No. 5,495,537). The arguments in Paragraph 2.a above as to the applicability of National Instruments are incorporated herein.

- a. Referring to Claim 46, National Instruments does not explicitly teach using hill-climbing in luminance pattern matching even though National Instruments teaches every other limitation in the claim as explained in Claim 1. Bedrosian figure 3 and column 4, lines 41-61, teaches applying hill-climbing in luminance pattern matching. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use hill-climbing technique in luminance pattern matching because hill climbing technique reduces the number of locations at which the matching-scoring function must be applied, column 1, lines 30-35 in Bedrosian.
- b. With regard to Claim 66, see explanation in Claim 46.

Allowable Subject Matter

4. Claims 2-44, 49 and 53-64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Manicakam et al, U.S. Patent No. 6,272,247 B1, see figures 5a-5c, and column 6, lines 63-67 and columns 7-9.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu



JOSE L. COUSO
PRIMARY EXAMINER